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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/925,021	08/09/2001	Minekazu Sakai	01-186	2499
23400	7590	03/31/2005	EXAMINER	
POSZ LAW GROUP, PLC 12040 SOUTH LAKES DRIVE SUITE 101 RESTON, VA 20191			CHAPMAN JR, JOHN E	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 03/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/925,021

Applicant(s)

SAKAI ET AL.

Examiner

John E. Chapman

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(Signature)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7-10 and 19-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 7-10, 21 and 22 is/are allowed.
- 6) ☒ Claim(s) 19, 20, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 19, 20, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al. in view of Sakai et al. (6,151,966).

Takeuchi et al. disclose a semiconductor dynamic quantity sensor comprising an insulation layer 22, a movable electrode 14 and a fixed electrode 191 supported by the insulation layer. As shown in Fig. 2C, opposing parts of insulation layer 22 have approximately the same width in the displacement direction (v in Fig. 1, x in Fig. 4). Fig. 4 of Takeuchi et al. shows anchor portions 121-124 anchored to parts of the insulation layer 22 in the displacement direction (x), which parts have approximately the same width as evident from Fig. 2C.

Accordingly, the only difference between the claimed invention and the prior art consists in forming the opening 24 from an opening in a silicon layer. Sakai et al. teach in Fig. 23 that it is conventional in the prior art to form a semiconductor dynamic quantity sensor comprising a moveable electrode 15 anchored to a frame member 19 formed of silicon with an opening therein and having an insulation layer 21 formed on a surface thereof. Accordingly, merely to form the opening 24 of Takeuchi et al. from a frame member formed of silicon with an opening therein and having an insulation layer formed on a surface thereof, would have been an obvious method of forming the opening 24 of Takeuchi et al. in view of Fig. 23 of Sakai et al.

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3. Applicant's arguments filed February 28, 2005 have been fully considered but they are not persuasive. Applicant argues that Takeuchi and Sakai '966 do not teach or suggest a frame member including first and second frame parts, wherein a difference between a width of the first frame part and the width of the second frame part in the displacement direction is 15% or less of a smaller of the width of the first frame part and the width of the second frame part in the displacement direction. Specifically, applicant argues that Fig. 2B of Takeuchi shows frame member thickness in a direction perpendicular to a displacement direction. However, Fig. 2C of Takeuchi shows frame member thickness in a direction parallel to a displacement direction (v in Fig. 1, x in Fig. 4) of moveable electrode 14, i.e., Fig. 2C shows the frame member 22 having parts approximately the same width in the displacement direction of the moveable electrode 14. What Fig. 1 fails to show are anchor portions 121-124 anchored to at least one of the first frame part and the second frame part, as recited in claim 19, lines 6-9, i.e., anchor portions 121-124 anchored to frame parts in the displacement direction (v in Fig. 1, x in Fig. 4). However, Fig. 4 of Takeuchi et al. shows anchor portions 121-124 anchored to frame parts in the displacement direction (x), which frame parts have approximately the same width, as evident from Fig. 2C. Accordingly, claims 19, 20, 23 and 24 are deemed unpatentable over Takeuchi et al. in view of Sakai et al. (6,151,966).

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

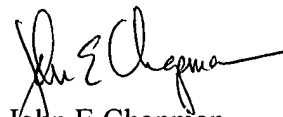
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E. Chapman whose telephone number is (571) 272-2191. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John E Chapman
Primary Examiner
Art Unit 2856